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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/312,073 05/13/99 USUI

M 448563/163

EXAMINER

MMC1/0320

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RIGHTITEM, M

ART UNIT

PAPER NUMBER

2861

DATE MAILED:

03/20/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/312,073	Applicant(s) Usui et al.
	Examiner Michael Nghiem	Group Art Unit 2861

Responsive to communication(s) filed on Feb 1, 2001

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-73 and 83-90 is/are pending in the application.

Of the above, claim(s) 1-14 and 24-35 is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 15-23, 36-73, and 83-90 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on May 13, 1999 is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 5-7, 9

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Election/Restriction

1. Applicant's election without traverse of Invention III, claims 15-23, 36-73, and 83-90 in Paper No. 11 is acknowledged.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "208" (page 11, line 12). Correction is required.

Claim Objections

3. Claims 48-56 and 58 are objected to because of the following informalities:

- claims 48-56 are misnumbered as claims 1-9.
- claim 58, "engagable" should be -- engageable --.

Appropriate correction is required.

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Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15-23 and 58-61 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 15, 58, it is unclear how “the pressure within said space (of recess 60) is lower than the atmospheric pressure when the ink cartridge is packed” since the specification describes that recess (60) is only partly sealed (or packed) and communicates with air (page 12, lines 7-9).

The remaining claims are also rejected under 35 U.S.C. 112, first paragraph, for being dependent upon a rejected base claim.

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5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 37, 39, 55, 56, and 65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 37, 55, is the “projection” different from the “member” of claims 36 and 57, respectively?

Claim 55 lacks antecedent basis, “said cartridge holder”.

The following claims are misdescriptive:

- claims 36, 65, the projection cannot, at the same time, extend from a lever of a cartridge holder and engages with an engaging hole means adjacent to the ink supply port.

- claim 56, “... said engaging recess comprising a first section for receiving the projection of the lever and a second section for receiving the member of the printer, and said first section and said second section being formed continuously”. Is the Applicant attempting to claim two recesses?

The remaining claims are also rejected under 35 U.S.C. 112, second paragraph, for being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 15, 16, and 21-23 are rejected under 35 U.S.C. 102(a) as being anticipated by Shinada et al. (GB 2315461).

Shinada et al. (461) discloses all the claimed features of the invention including:

- an ink cartridge (501) for an ink jet printer (Fig. 1), comprising:
 - a housing having walls (Fig. 2) and an opening (opening covered by 516),
 - a top wall of said housing being constituted by a lid (516) covering said opening of said housing (Fig. 2);
 - at least one ink chamber (511) defined by said housing and said lid; an ink supply port (513) formed on one of the walls of said housing;
 - at least one recess (514) forming a space in an outer surface of said lid, the pressure within said space being lower than the atmospheric pressure when the ink cartridge is packed (when 514 is sealed, Figs. 6a, 6b),

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- a seal member (542), wherein said wall has an outer surface, the recess being covered by said seal member adhered onto the outer surface of the wall of said housing (Figs. 6a, 6b),

- plural number of said recesses (514, 515) are formed in the outer surface of said lid,

- a fine, circuitous groove (540) formed in one surface of said lid where said recess is formed (Figs. 6a, 6b),

- an air communication hole (541) formed in said lid for communicating the interior of the ink cartridge with the atmospheric air, said air communication hole being disposed in the vicinity of said recess (Fig. 6a).

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 36, 40, 41, 43, 46, 48, 49, 53, 55, 57, 62, 66, 67, 69, 72, 84, 86, 87, 89, and 90 are rejected under 35 U.S.C. 102(e) as being anticipated by Shinada et al. (US 6,019,465).

Shinada et al. (465) discloses all the claimed features of the invention including:

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- an ink cartridge (Fig. 2) for an ink jet printer said ink jet printer having a member (right protrusion from bottom wall of holder 11 near ink supply port, Fig. 2) and ink supply needle (16), comprising:

- a housing having at least one wall (Fig. 2);

- an ink supply port (27) formed on the wall of said housing; and at least one engaging hole means (right recess near ink supply port receiving right protrusion, Fig. 2) formed in the wall of said housing adjacent to said ink supply port (Fig. 2), said engaging hole means being engageable with the member of the printer when the ink cartridge is mounted on the printer (Fig. 2),

- said ink supply port and said engaging hole means are formed on a bottom of said housing (Fig. 2),

- said ink supply port protrudes from the bottom wall of said housing (Fig. 2),

- said engaging hole means comprises an even number of engaging holes (two recesses on either side of ink supply port, Fig. 2),

- at least two of the engaging holes are disposed along a line (line connecting the two recesses, Fig. 2),

- a second engaging recess (recess on surface of top wall of 20, Fig. 2) is formed on an outer surface of said lid,

- a porous member (23) fitted in an ink chamber defined by said housing and said lid, said porous member being impregnated with ink and engaging with said ink supply port (Fig. 2),

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- the engaging recess engages with a rod (protrusion of lever of holder 11 of carriage, Fig.

2) projecting from a carriage of the printer onto which the ink cartridge is mounted,

- said cartridge holder (11) includes a lever, said engaging recess engaging with a projection formed on a lever of a cartridge holder of the ink jet printer (Fig. 2),

- the engaging holes along the same line are formed by separate holes (two separate recesses, Fig. 2).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinada et al. (461) in view of Shinada et al. (465).

Shinada et al. (461) further discloses the following claimed features of the invention:

- a portion of said seal member is removable (545),

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- said recess is disposed on a part of said lid which is spaced apart from said ink supply port (location of 514).

However, Shinada et al. (461) does not disclose the following claimed features:

- said recess is disposed under the removable portion of said seal member,
- a carriage, the cartridge being mounted in the carriage and said recess is disposed on a part of said lid which is engageable with a member of the carriage when the ink cartridge is mounted on the carriage,
- a mounting lever mounted on the carriage wherein the member of the carriage comprises a rod projecting from the mounting lever.

Nevertheless, Shinada et al. (465) discloses a carriage (Fig. 1), the cartridge being mounted in the carriage (Fig. 1) and said recess (recess on surface of top wall of 20, Fig. 2) is disposed on a part of said lid (top wall of 20) which is engageable with a member (protrusion of lever, Fig. 2) of the carriage when the ink cartridge is mounted on the carriage (Fig. 2), a mounting lever (lever, Fig. 2, 125, Fig. 12a) mounted on the carriage wherein the member of the carriage comprises a rod (protrusion of lever, Fig. 2) projecting from the mounting lever, for the purpose of mounting and securing the cartridge to the carriage.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Shinada et al. (461) with engaging means between a cartridge and

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a carriage as disclosed by Shinada et al. (465) for the purpose of mounting and securing a cartridge to a carriage.

Even though Shinada et al. (461) as modified does not disclose said recess is disposed under the removable portion of said seal member, it is noted that relocation of parts merely involves routine skill in the art. MPEP 2144.04. Therefore, it would be obvious to relocate the recess of Shinada et al. (461) such that it is disposed under the removable portion of said seal member.

Claims 37-39, 42, 44, 45, 47, 50-52, 54, 56, 58-61, 63-65, 68, 70, 71, 73, 83, 85, and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinada et al. (465) in view of Shinada et al. (461).

Shinada et al. (465) further discloses the following claimed features of the invention:

- an abutment member (projection of ink supply port, Fig. 2) which abuts against the projection of the ink jet printer when the ink cartridge is mounted in the improperly,
- said engaging recess comprising a first section (left recess on surface of top wall of 20, Fig. 2) for receiving the projection of the lever and a second section (right recess on surface of top wall of 20, Fig. 2) for receiving the member of the printer (Fig. 2).

However, Shinada et al. (465) does not disclose:

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- said engaging hole means engages with a projection formed on the ink jet printer, the height of the projection being greater than that of the ink supply needle of the ink jet printer,
- said engaging hole means comprises an odd number of engaging holes,
- the position of said engaging holes are asymmetrical with respect to a center transversal line of said ink supply port,
- said engaging hole means is rectangular in cross section,
- a seal member affixed to an outer surface of said lid, a portion of said seal member being removable,
- said lid has a center line, and said engaging recess is disposed at a position which deviates from the center line of said lid,
- said engaging recess has capacity sufficient to receive gas escaped from the ink cartridge when the ink cartridge is packed in a package under a degassed condition,
- said engaging recess is covered by a removable seal,
- the pressure within said space being lower than the atmospheric pressure when the ink cartridge is packed.

Nevertheless, Shinada et al. (461) discloses a seal member (542) affixed to an outer surface of said lid (Figs. 6a, 6b), a portion of said seal member being removable (545), said engaging recess (514) has capacity sufficient to receive gas escaped from the ink cartridge (514 communicates with interior of 501), the pressure within said space being lower than the atmospheric pressure

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when the ink cartridge is packed (when 514 is sealed, Figs. 6a, 6b), for the purpose of packaging and ventilating a cartridge.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Shinada et al. (465) with a seal member and an engaging recess as disclosed by Shinada et al. (461) for the purpose of packaging and ventilating a cartridge.

Even though Shinada et al. (465) as modified does not disclose the claimed height of the projection, odd number of engaging holes, the claimed position of said engaging holes, and the claimed shape of the engaging hole means, it is noted the change of size and shape, duplication of parts, and relocation of parts merely involve routine skill in the art. MPEP 2144.04.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Oda et al. (US 5,552,816) discloses means of attachment between an ink cartridge (T) and a cartridge holder (H, Fig. 1).

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. An inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 308-0956.



Michael Nghiem

March 15, 2001